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ABSTRACT

Four groups of gifted, underachieving students in the intermediate grades were established for purposes of providing varied treatment to improve personal adjustment and academic achievement. The four groups were the human relations group, which was oriented to group discussion of feelings and interpersonal dynamics, the academic group, which focused on the presentation and discussion of scientific and other related subjects in group discussion, individual counseling oriented to the discussion of feelings and interpersonal dynamics, and control group. The human relations group and the academic group participated in weekly 1 and 1/2 hour discussions throughout the 1961-62 school year. There was no specific counseling procedure. Results of posttesting showed that although all four groups improved in areas of adjustment, the human relations group and the academic group only made significantly positive gains. Treatment groups made no greater academic gains than did the control group. It was concluded that participation in small group discussions did improve adjustment, but that this participation did not necessarily improve academic achievement. (For a followup study, see EC 042 133.) (CB)

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A COMPARATIVE STUDY OF FOUR TYPES OF TREATMENT IN IMPROVING ADJUSTMENT AND SCHOOL ACHIEVEMENT OF GIFTED UNDERACHIEVERS

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EC 042 134

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Introduction

Educators in North America have long been concerned over the gap between promise and performance; between potential and productivity. Such a gap is an irritation to both our theories and practices of education; moreover, it casts doubt on the few yardsticks we presently have for predicting, hence verifying, our methods.

This concern has lately been intensified by the growing ideological struggle with its emphasis on "achievements", and particular attention has been focussed on the so-called "Gifted Underachiever". Numerous conferences, projects and research studies have been initiated in the past 10 years to deal specifically with those intellectually superior children who are showing academic underachievement.

While innumerable studies have been made of the multitude of possible factors which are associated with, or may underlie this discrepancy between indices of ability and indices of achievement, few, if any, conclusions can be drawn. Indeed, contradictory findings appear to be the rule rather than the exception (Raph and Tannenbaum, 1961).

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1. This project was initiated by Mr. R. Jones, Inspector of Special Education, Toronto Board of Education and was carried out with the cooperation of the following persons at the Toronto Board of Education: Miss J. Winston, Consultant in Special Education; Mr. Ralph Belfry, Science Consultant; Dr. Florence Scott, Psychiatrist, Child Adjustment Services; Miss Doreen Darbis, Child Adjustment Services; Dr. A. MacKinnon, Director of Research and the staff of the Research Department.

Nevertheless, if there is one factor which does appear more often than not, it is the positive relationship between personality difficulties and low academic performance (Gough, 1949).

Consequently, when the Toronto Board of Education decided to examine this problem more carefully, it was felt that attention should be paid to the application of techniques of fostering personality integration to the school setting, rather than repeating or multiplying studies of possible correlates with "underachievement".

In order to examine variables associated with the treatment of underachievers, we decided to set up four groups with respect to "treatment". These were as follows:

Group A: Group Sessions oriented to the discussion of feelings and interpersonal dynamics. This was called the Human Relations Group.

Group B: Group Sessions oriented to the presentation and discussion of scientific and other related subjects. We termed this the Academic Group.

Group C: Individual Sessions oriented to the discussion of feelings and interpersonal dynamics. These sessions would be conducted within the home school of the student, by a counsellor or guidance teacher associated with that school. No explicit directions were given to these counsellors except that they were to "take a personal interest in the student".

Group D: Control Students, for whom no programme would be furnished other than the usual school routine. While such students were permitted to remain in any "special" classes in which they had been enrolled (e.g. reading difficulties, etc.), we requested

that they not be given any additional special treatment or referral unless absolutely essential.

Pupils were classified as "gifted underachievers" when they had an I.Q. of 120 or above as measured by the Stanford-Binet individual test of intelligence, and (in order of priority):

(a) had repeated, or were repeating a grade;

or (b) had passed on trial (i.e. qualified promotion);

or (c) were unable to cope with their present programme (as judged by teacher and principal);

or (d) were rated six months or more below their grade level on any standardized test of achievement.

On the basis of a survey carried out in January, 1961, 44 children were selected on the basis of the above criteria.* Later transfers, etc., reduced this population to 37 children, and these 37 children formed the basis of our study.

The following chart shows the distribution of these children within the four treatment groups:

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* In our selection we excluded children who were seriously disturbed, or who suffered from specific defects (e.g. speech problems).

Variables	Group A Human Relations	Group B Academic	Group C Individually Counselled	Group D Maturation Only
Number of pupils	10	11	8	8
Sex	m - 8 f - 2	m - 7 f - 4	m - 6 f - 2	m - 4 f - 4
Age (as of 1.10.61)	range 9^{10} - 11^{5} mean 10^{4}	range 8^{10} - 10^{9} mean 9^{9}	range 8^{11} - 10^{6} mean 9^{11}	range 9^{1} - 10^{4} mean 9^{10}
I.Q.	range 124 - 143 mean 131.6	range 125 - 162 mean 135.0	range 139 - 124 mean 131.9	range 126 - 143 mean 133.6
Grades (School Year 61-62)	in grades: 4 - 1 5 - 8 6 - 1	in grades: 4 - 2 5 - 8 6 - 1	in grades: 4 - 1 5 - 6 6 - 1	in grades: 4 - 1 5 - 6 6 - 1

In the evaluation of "improvement", there were several factors to be considered. It was decided to specify hypotheses and to select measures to test:

(i) The child's "general adjustment" as measured by a standardized test of personality;

(ii) The child's "general adjustment" as seen by his teacher;

(iii) The child's "achievement" as measured by standardized achievement tests.

Hypotheses, Tests and Method

1. Hypotheses

The general hypothesis was that gifted underachieving children who receive either of the three special programmes as outlined above will show a better total adjustment as a result, than children not receiving such treatment. Specifically, the child in the Experimental Group will feel better about himself after the treatment and this change will "free"

the child both to form more positive feelings about school and thus attain a higher level of academic performance. It was expected that children in the Human Relations Group would show more improvement than those in the Academic Group; those receiving Individual Sessions and those being affected by maturation alone, following in order.

2. Tests

(a) The California Test of Personality was given to all pupils during October, 1961 (Form AA) and again during June, 1962 (Form BB).* Teacher's ratings of the child's general adjustment compared to the other class members (see appendix B) in November and again in May were obtained. Teachers completed a Teacher's Confidential Report form (see appendix A) in December and again in May. Teacher's comments on the O.S.R. cards including those of the 1961-62 school year were tabulated.

(b) The Metropolitan Achievement Test, Form A was administered to all pupils in November, 1961 and again (Form C) in May, 1962. Pupils' marks on the June promotion sheets throughout the child's grades were tabulated (including June, 1962), as well as ratings obtained on standardized reading and arithmetic tests as recorded on pupils' O.S.R. cards. The standing of each pupil in relation to his class in June was tabulated for June, 1961 and 1962.

3. Description of Methods of Treatment

Treatment Group A (Human Relations Group)

These were weekly, hour and a half sessions from September, 1961 to May, 1962 devoted to discussion of whatever students wished to bring up. The activity of the leader was twofold:

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* This test was found to discriminate between high and low achievers on the basis of scores in adjustment (Leibman, 1954).

(a) To keep open the channels of communication between students by asking for clarification of ideas, examples, elaborations and the views of others. No opinions were given unless requested and no material was introduced unless requested (e.g. films).

(b) To focus on the feelings and emotional reactions of students to materials being discussed. While specific "guidance" of the students towards these areas was not practised, it would not be unusual for the instructor to repeat a statement of feeling by a student (e.g. "You felt angry when that happened."), or to ask for elaboration of such a statement. Seldom, however, would the instructor repeat or seek elaboration of such a statement as "Cotton comes from plants, not animals.", (although he would do little more than this to discourage such statements).

The content and activity during the discussions covered all areas, ranging from an initial preoccupation with "monsters" and "horror movies", through discussion of the Civil War in the U. S., through problems of getting along with siblings, to scapegoating of one sex by the other, etc. At times the group requested films, puzzles, "competitions" and reading materials.*

The general format which emerged was an initial "free-period" of about 10-15 minutes during which individuals and small groups compared collections, did puzzles, etc.; then there began the general discussion which often drew upon the activities of the first few minutes. The first period of time was encouraged as a way of developing relationships between members and generating a more informal atmosphere, as well as discharging some of the tension remaining from any inactivity before the session.

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* For further description of this technique see Mallinson, 1954.

Treatment Group B (Academic Group)

Weekly one and a half hour classes were held from September, 1961 to May, 1962. For the first half of the school year, formal lessons, that included films dealing with theories of the creation of the universe and evolution of life, were conducted. The children were encouraged to discuss freely and were required to make specific notes and diagrams in notebooks which were periodically marked. The second half of the programme, which culminated in a field trip, consisted of group research. The children were organized into 4 groups, each with a leader. Each group chose an area related to the lessons and prepared it for presentation to the other class members.

Although the focus of these classes was upon the content of the lessons and the children were structured as in a regular classroom setting, the Science Instructor frequently commented on good work habits, conduct in group participation and general standards of behaviour as the actual activities and experiences in the group presented the opportunity. Also in the course of maintaining an orderly and stimulating atmosphere, excitable children were often reminded of control, shy children were encouraged towards greater oral participation and the group as a whole often brought to attention.

Treatment Group C (Individually Counselled)

No attempt was made to standardize specific procedures for individual counselling. However, the counsellors met before the study and exchanged ideas concerning techniques. They decided that the counsellor should develop a warm friendly relationship with the gifted underachieving pupil and take a genuine interest in the child's personal welfare. The counsellors were to keep a record of observations and comments concerning each interview.

The time which counsellors spent with the child varied from one long formal conversation and special selection for monitor jobs, irregular interviews dependent on the child's reaction, to regular half hour weekly sessions. Most counsellors saw the children on a weekly basis after establishing friendly rapport by various casual meetings. There were many variations in the approaches followed by the counsellors. Long formal conversations, special selecting of pupils for monitor jobs, irregular interviews dependent on the child's reaction and regular half-hour weekly sessions were reported. Focus of the sessions varied from actual remedial assistance with weak subjects together with informal discussion of personal feelings and interests, to feelings and interests as the main concern.

In all cases the counsellors endeavoured:

(a) to have the child feel that the interest shown and attention given were not objectively prearranged and thereby were genuine.

(b) to understand the child's problems and feelings.

(c) to provide the assistance possible within their capacity and limitations of time and nature of formal duties.

(d) to make the child feel liked and worthwhile as an individual.

Results

1. Formal Results

A. Adjustment

1. Statistical analysis of difference in average scores on adjustment before and after treatment as measured by the California Test of Personality appears to substantiate our general hypotheses. (Table 1)

TABLE 1
t TEST ON THE DIFFERENCE OF THE MEANS
OBTAINED BY EACH OF THE FOUR GROUPS ON
THE C.T.P. BEFORE AND AFTER TREATMENT

Group	Type of Adjustment	N	Mean		Difference (D)	t
			Before	After		
Human Relations - A	Personal	10	40.10	44.60	4.50	2.438*
	Social	10	37.60	43.60	6.00	4.087**
	Total	10	39.50	43.90	4.40	2.627*
Science - B	Personal	11	44.09	52.36	8.27	3.172**
	Social	11	44.54	50.18	5.64	1.803
	Total	11	44.73	50.82	6.09	2.372*
Individually Counselled - C	Personal	8	48.00	48.12	.13	.035
	Social	8	48.12	48.62	.50	.193
	Total	8	48.50	49.00	.50	.212
Control - D	Personal	8	53.38	58.38	5.00	1.488
	Social	8	54.00	55.00	1.00	.452
	Total	8	54.00	57.00	3.00	1.010

* significant at .05 level

** significant at .01 level

Table 1 reveals that:

(a) the Human Relations Group made, on the average, signficantly positive gains in the areas of personal, social and total adjustment;

(b) the Academic Group improved significantly in the areas of personal and total adjustment;

(c) the gains made by the Individually Counselled and Control Groups, though positive, were not statistically significant.

Table 2 indicates mean change between the groups.

TABLE 2
t TESTS OF THE DIFFERENCE BETWEEN
MEAN CHANGE SCORES ON THE C.T.P.
FOR FOUR TYPES OF TREATMENTS

Adjustment	Groups Compared	Means Compared	t
Personal	A-B	4.50 - 8.27	1.16
	A-C	4.50 - .13	1.16
	A-D	4.50 - 5.00	.14
	B-C	8.27 - .13	1.90*
	B-D	8.27 - 5.00	1.04
	C-D	.13 - 5.00	1.34
Social	A-B	6.00 - 5.64	1.61
	A-C	6.00 - .50	1.95*
	A-D	6.00 - 1.00	1.95*
	B-C	5.64 - .50	1.20
	B-D	5.64 - 1.00	1.12
	C-D	.50 - 1.00	.15
Total	A-B	4.40 - 6.09	1.03
	A-C	4.40 - .50	1.39
	A-D	4.40 - 3.00	.43
	B-C	6.09 - .50	1.54
	B-D	6.09 - 3.00	.79
	C-D	.50 - 3.00	.66

* Significant at .05 level

Of the groups taken in pairs, the comparisons indicated:

(i) The improvement in personal adjustment was significantly greater in the Academic than in the Individually Counselled Group.

(ii) The improvement in social adjustment was significantly greater in the Human Relations Group than the Control and Individually Counselled Group.

2. On the teacher's numerical ratings (see Appendix B) of the children's adjustment before and after the study in comparison to their class-mates no significant results were obtained. (Table 3)

TABLE 3
THE WILCOXON MATCHED-PAIRS SIGNED-RANKS TEST
ON TEACHERS' RATINGS ON ADJUSTMENT BEFORE AND AFTER
THE TREATMENT FOR EACH OF THE FOUR GROUPS

Group	N	t	Significance of t
A - Discussion	6	7	N.S.
B - Science	4	4	N.S.
C - Individual-Counselling	2	0	N.S.
D - Control	7	9	N.S.

B. Achievement

1. All of the groups made positive and generally significant academic gains as measured by the Metropolitan Achievement Test. (Table 4)

TABLE 4
t TEST ON THE DIFFERENCE OF THE MEANS OBTAINED BY EACH OF THE FOUR GROUPS ON THE M.A.T. BEFORE AND AFTER TREATMENT

Group	-	N	Mean		Difference (D)	t
			Before	After		
Discussion-A	Word-Knowledge	10	53.30	57.10	3.80	2.59*
	Reading	10	53.00	54.90	1.90	.95
	Spelling	10	52.40	53.80	1.40	.56
	Language	10	42.90	55.30	12.40	4.73**
	Arith. Comp.	10	35.50	46.10	10.60	5.16**
	Arith. Prob. Sol. & Concepts	10	32.40	42.30	9.9	3.68**
Science-B	Word-Knowledge	11	53.64	58.82	5.18	2.27*
	Reading	11	51.82	54.55	2.73	1.01
	Spelling	11	53.09	54.27	1.18	.45
	Language	11	44.09	52.91	8.82	2.38*
	Arith. Comp.	11	36.36	47.18	10.82	4.44**
	Arith. Prob. Sol. & Concepts	11	37.18	43.45	6.27	3.99**
Individually Counselled-C	Word-Knowledge	8	45.88	51.00	5.12	3.89**
	Reading	8	46.00	53.38	7.38	2.51*
	Spelling	8	41.88	48.63	6.75	3.15**
	Language	8	41.25	50.63	9.38	3.30**
	Arith. Comp.	8	41.25	49.13	7.38	2.18*
	Arith. Prob. Sol. & Concepts	8	41.00	49.00	8.00	3.26**
Control-D	Word-Knowledge	8	50.38	55.25	4.87	3.46**
	Reading	8	52.38	57.38	5.00	2.17*
	Spelling	8	48.00	51.25	3.25	1.66
	Language	8	45.75	58.00	12.25	3.05**
	Arith. Comp.	8	42.38	54.50	12.12	5.14**
	Arith. Prob. Sol. & Concepts	8	41.00	51.38	10.38	2.73*

* Significant at .05 level

* Significant at .01 level ($p \geq .01$)

This improvement would be expected in the course of the school year. Further analysis, as shown in Table 5, reveals that the Treatment Groups did not make significantly greater academic improvement.

TABLE 5
t TEST ON THE DIFFERENCE BETWEEN
MEAN CHANGE SCORES ON M.A.T.
FOR FOUR TYPES OF TREATMENTS

	Groups Compared	Means Compared	t
Word-Knowledge	A-B	3.80 - 5.18	.50
	A-C	3.80 - 5.12	.65
	A-D	3.80 - 4.87	.52
	B-C	5.18 - 5.12	.02
	B-D	5.18 - 4.87	.10
	C-D	5.12 - 4.87	.14
Reading	A-B	1.90 - 2.73	.24
	A-C	1.90 - 7.38	1.59
	A-D	1.90 - 5.00	1.03
	B-C	2.73 - 7.38	1.15
	B-D	2.73 - 5.00	.61
	C-D	7.38 - 5.00	.64
Spelling	A-B	1.40 - 1.18	.06
	A-C	1.40 - 6.75	1.56
	A-D	1.40 - 3.25	.57
	B-C	1.18 - 6.75	1.54
	B-D	1.18 - 3.25	.59
	C-D	6.75 - 3.25	1.20
Language	A-B	12.40 - 8.82	.77
	A-C	12.40 - 9.38	.78
	A-D	12.40 - 12.25	.03
	B-C	8.82 - 9.38	.11
	B-D	8.82 - 12.25	.62
	C-D	9.38 - 12.25	.58
Arithmetic Comp.	A-B	10.60 - 10.82	.07
	A-C	10.60 - 7.88	.86
	A-D	10.60 - 12.12	.49
	B-C	10.82 - 7.88	.70
	B-D	10.82 - 12.12	.37
	C-D	7.88 - 12.12	.99
Arith. Prob. Sol. and Concepts	A-B	9.90 - 6.27	1.19
	A-C	9.90 - 8.00	.51
	A-D	9.90 - 10.38	.11
	B-C	6.27 - 8.00	.62
	B-D	6.27 - 10.38	1.11
	C-D	8.00 - 10.38	.53

All values not significant

2. There were no significant differences between the groups in the total grade given to the children by their teachers before and after treatment (school years 1960-61, 1961-62). Table 6 gives the details of this analysis.

TABLE 6
THE WILCOXON MATCHED-PAIRS SIGNED-RANKS
TEST ON TEACHERS' RATINGS ON SCHOOL ACHIEVEMENT
BEFORE AND AFTER THE TREATMENT FOR EACH OF THE FOUR GROUPS

Group	N	t	Significance of t
A - Discussion	7	6.5	N.S.
B - Science	6	3.0	N.S.
C - Individual-Counselling	3	2.0	N.S.
D - Control	3	1.5	N.S.

Comparison of the final marks in science for the school years 1960-61 and 1961-62 obtained by children attending the Academic Group revealed no significant improvement.

In summary the groups differed significantly in some areas of personal and social adjustment as hypothesized but the Treatment Groups made no greater academic gains than did the Control Group.

2. Informal Results:

The teachers were asked to record observations concerning the children's general attitudes, response to authority and responsibility, peer relations, work habits, etc. (see TCR in Appendix A), in November, 1961 and again in May, 1962, and to note specifically any changes. These observations of change were rated on a 5-point scale of improve-

ment and the average of the groups compared. The chart below shows the categories within the scale.

TEACHER'S RATINGS REGARDING CHANGE OBSERVED (NOV. TO MAY)

Improvement - Personal - personality characteristics (shy, nervous, etc.)
- peer relations
- emotions, attitudes

Academic - work habits (concentration, responsibility, etc.) marked improvement in weak areas
- actual grades above the class average
- response to authority, correction, etc. (responsible, mature or negative)

Ratings:

Improved

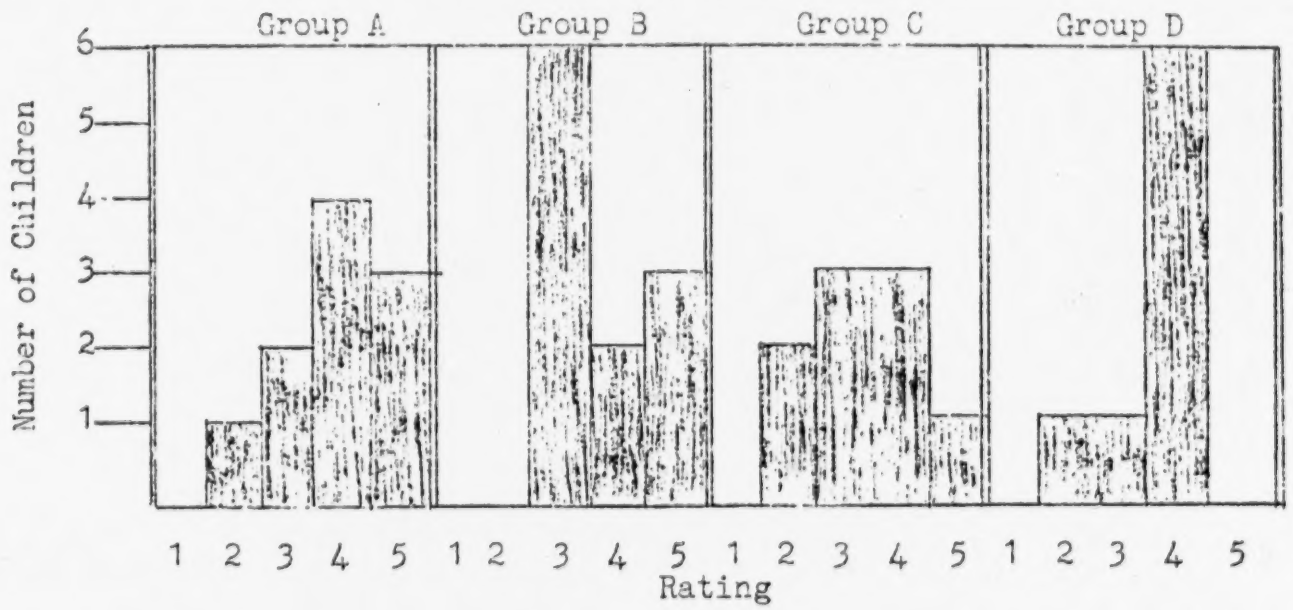
(5) - marked improvement in one area and/or some improvement in both areas
(4) - slight improvement in one area

No Change (3)

Disimproved

(2) - as #4 - slight negative change in one area
(1) - as #5 - marked negative change in one or some negative change in both areas

The figure below is a graphic presentation of the results.



Statistic	Group A	Group B	Group C	Group D
$\bar{X}$	3.9	3.73	3.375	3.625
s^2	.99	.817	1.13	.557
s	.99	.903	1.06	.746
	(n = 10)	(n = 11)	(n = 8)	(n = 8)

t tests indicate no significant differences among means.

Statistical analysis revealed no significant differences in "improvement" between the groups. However, the difference in the distribution of cases in the groups merited closer analysis of content. This brought forth the following observations:

(1) Marked improvement occurred only in the Treatment Groups:

(a) Teachers of children attending the Human Relations Group observed many of the children to be primarily more "relaxed", "outgoing", "calm", "friendly", "less nervous" and "willing to face reality".

(b) Teachers of children attending the Academic Class considered many to have made noticeable gains both in the general academic area -- "more industrious", "taking pride in work" etc. and personal areas -- "generally happier", "more mature", etc.

(c) Teachers of children receiving Individual Counselling similarly noted changes in both areas -- "less shy", "more interest shown", "more friends", "better attitude towards discipline" -- as well as improvement in specific subjects wherein remedial help was given.

(2) Most of the teachers of children in the Control Group noted slight gains in both personal-social and general academic areas which they attributed to maturation. For many of the children these teachers felt there was no outstanding problem. (Comparison of the mean adjustment scores for the groups on the California Test of Personality also suggests the Control Group was initially better adjusted than the Treatment Groups.)

Comparison of the changes in children's self-ratings on the California Test of Personality with the teachers' observations generally

revealed close agreement with small divergence. However, in a number of cases there was marked disagreement. (For example, an insecure forward child in the Academic Group who was observed to be more self-controlled by the Science Instructor and more socially co-operative by his teacher rated himself lower in May in the areas of social skills thereby lowering his score of adjustment.) Also in several instances children rated themselves as improved, whereas the teacher saw no noticeable change. The following interpretations seemed most plausible:

(i) Children rating themselves poorer in weak areas of adjustment wherein there has been some observed improvement may involve the dynamics of more realistic self-awareness and possibly making the initial step towards emotional growth.

(ii) Gains that children rated but were not observed by teachers may not have been great enough to overcome poor behaviour patterns in the classroom.

Discussion: Summary and Interpretation of Results

The results of this study showed, as have many others, (Broedel, 1958; Baymur, 1959; Krugman, 1960; Ohlsen, 1949; Williams, 1962) that special selection and participation in small groups oriented for the main purpose of improvement does make a positive difference in children's adjustment. Further, the formal results would suggest that group treatment is on the average more effective than various means of limited individual counselling. It should be pointed out that the children were not overtly seeking help. Probably the supportive attention that was irregular and casual in some cases of individual counselling did not reach a like intensity of involvement and sense of reality for the

children as occurred in the groups. However, the informal evidence of improvement in many children receiving individual counselling tends to substantiate the value of such attention in effecting positive changes. (Baymur, 1959).

By chance, children in the Control Group were initially on the average better personally and socially adjusted. Consequently, comparisons of changes among the groups may not answer the question whether gifted underachievers with personality difficulties would make gains in adjustment as great without special consideration as with extra attention. It may be theorized that as the children in the Control Group were initially more positive and open in their attitudes, they were more able to benefit by positive environmental and internal forces towards maturation. Hence, comparison to the maturational gains of the Control Group tends to overshadow or minimize the over-all improvement in the influence groups.

Results concerning the second hypothesis -- improvement in general adjustment will also result in better academic grades -- showed that this positive transfer did not occur. Although there are some exceptions, (for example Calhoun, 1956), the majority of studies of effort to raise academic standing by similar means were also largely unsuccessful. (Krugman, 1960; Martinson, 1959; Ohlsen, 1949) The question arises, (similar to Broedel, 1960) as to whether it is unrealistic to expect children to overcome longstanding inferior levels of skill and/or poor work habits and feelings concerning school application within a relatively short period of time while the dynamics of "treatment" are occuring.* Perhaps the group and counselling experience would affect

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* The majority of children in the study have been underachievers since entering school.

improvement after the gains are more thoroughly "Integrated" or stabilized. The findings of Broedel (1958) showed this to occur.

The study attempted to ascertain the effects of different focus in the two special groups. Upon examination of the formal results it would appear that our sub-hypothesis is substantiated, in that the Human Relations Group improved in both areas of personal and social adjustment; whereas the Academic Group made gains only in the personal adjustment area. The suggestion arises that the greater permissiveness and focus on inter-reactions in the Human Relations Group were more effective in stimulating an improved sense of freedom or well-being in social adjustment. However, considering the fact that there was only one sample of each group and that different counsellors for each group were involved, no conclusions can be drawn. It is further interesting to note that personal adjustment gains but no academic gains in the specific subject area employed in the Academic Group occurred. It is likely that attendance at a different school for the special classes, together with emphasis on personal participation and general behaviour served to create a situation very different than one of academic remedial help for the children. (Nelson, 1960, p.83)

Causes of underachievement have been found to be many and varied (Barrett, 1957), and it is generally agreed that the "gifted underachiever" cannot be considered as a uniform entity. Further, some marked differences between teachers' observations and children's self-ratings serve to emphasize that different dynamic processes are occurring within each child. However, the study has shown that the special attention and consideration of our Experimental Groups does effect some change within a school year. The persistence and final

outcome of these gains and later effects of participation in the groups can be determined only through follow-up investigation.

Further testing is planned during the 1962-63 academic year to test the stability of those changes which did occur, and to discover whether or not there are any "sleeper" effects (e.g. later academic improvement). Consequently, we do not plan to carry these classes forward at the present time, since such intervention would contaminate whatever delayed effects might occur.

Conclusion

The results of this study have shown at least the partial efficacy of group participation on the "gifted underachiever" in terms of his personal and/or social adjustment but have failed to indicate any startling improvement in his achievement. Perhaps this latter fact should cause us to re-examine the assumed relationship between personality difficulty and poor academic performance in "gifted underachievers".

In their review of the literature on underachievement, Raph and Tannenbaum (1961) cite numerous studies which have attempted to establish the relationship between underachievement in the gifted person and his emotional maladjustment. (This study has been made on the assumption that such a relationship exists.) But a closer examination of these studies reveals that the evidence is far from unequivocal. Although many studies report differences in emotional adjustment between "achievers" and 'non-achievers", there are several which fail to differentiate the underachiever from his normal or overachieving fellows on personal adjustment inventories. With respect to personal adjustment, a number of studies may be cited which find no relationship to academic underachievement (Morgan, 1952; Dowd, 1952). The evidence on social

adjustment is even more contradictory, and various studies exist which show the underachiever to be both socially gregarious (Terman, 1947) and introverted or withdrawn (Blackham, 1955). Raph and Tannenbaum (1961) summarized the available studies as follows:

> "The inconclusive and somewhat contradictory evidence on the relationship of total adjustment to achievement may be due to the problems inherent in assessing personality functioning, the types of instruments and inventories available as well as the varying definitions of underachievement. Or it may be a spurious notion, indeed that adequate school performance necessarily correlates with the commonly accepted standards of good adjustment."

If the connection between adjustment and performance is a "spurious", or at best, a tenuous one, then it is imperative that we re-evaluate our thinking in this area. We should not be overwhelmingly surprised if our efforts to treat therapeutically the personally maladjusted underachiever result in an improvement in his personality but not necessarily in his achievement. While it may be socially desirable to accomplish the first of these goals, we must not assume the automatic attainment of the second. Once this fact is recognized, we can perhaps devote our attention to the problem of the underachiever from other previously unexplored perspectives, instead of continuing to operate on the basis of unproven common sense assumptions.

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APPENDIX A

Confidential Report on Pupil

Date .....
Day Month Year

1. Name..... Date of Birth..... Address.....

2. School..... Room.... Grade.....Teacher.....

3. If foreign born, country of birth..... Year of arrival in Canada.....

4. Referred by:.....

5. Reason for referral (please formulate statement carefully so that it is clear and specific) and duration of problem (see O.S.R. comments of previous years):

.....

.....

6. What measures have been taken at school to adjust the problem as stated above?

.....

.....

7. List: (a) dates and results of tests of learning capacity (intelligence) indicating whether individual or group.....

.....

(b) other Child Adjustment Services contacts .....

.....

8. Grades repeated:.....

9. Any acceleration or enrichment?.....

10. Indicate approximate achievement level for each subject: (e.g., Reading Gr. IV, Arith. Gr. V.)

Reading	Writ.	Spell.	Arith.	Soc. St.	Lang.	Art	Music	M. T.	House. Sc.	P.Ed.

11. Attendance/Punctuality -- State reasons for irregularity:.....

.....

12. Please comment on pupil under the following headings:

(a) Appearance and manner.....

.....

(b) Special interests shown in school.....

.....

(c) Response to authority, willingness to face up to reality and accept responsibility.....

.....

(d) Behaviour and personality.....

.....

(e) Response to other pupils in classroom or on playground, to adults.....

(f) Extra-curricular interests, skills, group affiliations.....

.....

13. Any contacts, known to school, of this family with social agency, creche, child guidance or mental health clinic, mental health consultant teacher, Hospital for Sick Children, private psychiatrist. Please specify.....

.....

14. Has there been personal contact with parents within the past year by:

Principal..... Teacher.....Guidance Counsellor

.....

Please give impression of home and management as gained by such

contact.....

.....

15. Further comments by Principal or other school staff member:

.....

.....

Signature

16. Public Health Nurse's comments on child's health and home:

.....

.....

Signature

17. Any additional information:

APPENDIX B

Teachers' Rating of Pupil Adjustment

TO THE TEACHERS:

Your judgment as to the degree to which each boy and girl in your classroom is a "normal, wholesome, healthy, well-adjusted" student is an important part of this study. From your knowledge of individual pupils, would you therefore classify members of your group into 5 categories as indicated below:

Best Adjusted 5th

_____

Second 5th

_____

Middle 5th

_____

Fourth 5th

_____

Least Adjusted 5th

_____